# Eastern Great Lakes Area Contingency Plan Annex II

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# **RECORD OF CHANGES**

# EASTERN GREAT LAKES AREA CONTINGENCY PLAN

Date of Change	Change   Number	Summary of Changes	Initials of Person Making Changes
15 JUN 94	     CH-1 	Complete Revision	       
15 JUN 95	   CH-2 	Complete Revision	
15 JUN 96	   CH-3 	Complete Revision	
1 JAN 00	     CH-4 	Complete Revision	
1 FEB 01	     CH-5 	Sensitive Area Map Updates	

# SPILL RESPONSE CONTACT SHEET

# Required Notifications for Hazardous Substance or Oil Spills

National Response Center	(800) 424-8802
U.S. Coast Guard Marine Safety Office Buffalo	(716) 843-9570
New York State Department of Environmental Conservation	(800) 457-7362

Cortland (607) 753-9334

U.S. Coast Guard (USCG)			
National Response Center	(800) 424-8802		
Marine Safety Office Buffalo:			
Daytime	(716) 843-9570		
24 Hours	(716) 843-9525		
Station Buffalo:			
Watchstander	(716) 843-9560		
Station Niagara:			
Watchstander	(716) 745-3328		
Ninth Coast Guard District:			
Communications Center	(216) 902-6117		
Marine Response Operations	(216) 902-6045		
Atlantic Strike Team	(609) 724-0008		
National Pollution Funds Center	(703) 235-4813		

# **Environmental Protection Agency (EPA)**

Region 2 Spill Response (NY) (732) 548-8730

National Oceanic Atmosphere Administration				
Scientific Support Coordinator (617) 223-8016				
800 WX-BRIEF				

Canadian Agencies	
Canadian Coast Guard OpCen	(519) 383-1841
Welland Canal	(905) 641-1932
Environment Canada	(416) 973-1059

<b>Department of Interior</b>	
New York - Daytime	(617) 223-8565
New York - 24 Hours	(508) 655-6102

·s
(716) 879-4160
(716) 879-0395
(716) 879-4313
(710) 077 4313

Amherst

Seneca	N	ati	Λn
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Environmental Response Office (716) 532-0024

New York State Agencies
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Dept of Environmental Conservation			
Region 9, Buffalo	(716) 851-7220		
24 Hours	(800) 457-7362		
State Emergency Management Office			
Region V - Daytime	(315) 331-4880		
24 Hours	(518) 457-2200		
State Police	(716) 679-1521		
Health Department	(716) 847-4500		
State Parks	(716) 278-1705		
State Historic Preservation Office	(518) 237-8643		

# **County Agencies**

Erie County (NY)	
<b>Emergency Management</b>	(716) 858-6578
24 Hours	(716) 858-6578
Fax	(716) 858-7937
Sheriff's Department	(716) 662-5554
Health Department	(716) 858-6963
24 Hours	(716) 898-4225
Niagara County (NY)	
<b>Emergency Services</b>	(716) 439-7310
24 Hours	(716) 439-7310
Fax	(716) 439-7309
Sheriff's Office	(716) 438-3393
Health Department (24hr)	(716) 439-7430

# HAZMAT Response Teams (Public Agency)

Erie County	
<b>Buffalo Fire Department</b>	(716) 851-4306
Erie County	(716) 858-6578
Southtowns Hazmat	(716) 648-5111
Brighton Hazmat	(716) 876-1212
Niagara County	

(716) 691-5456

 Niagara County
 (716) 438-3393
 Petroclean, Inc.

 Lewiston Hazmat
 (716) 438-3393

 Niagara Air Base
 (716) 236-2086

HAZMAT Response Teams (Industry)	
OxyChem	(716) 278-7539
Dupont TERP	(716) 278-5131

Hospitals	
Erie County	
Buffalo General	(716) 845-5600
Children's Hospital	(716) 878-7000
ECMC	(716) 898-3000
Kenmore Mercy	(716) 879-6100
Mercy	(716) 826-7000
Milliard Fillmore	(716) 887-4600
Millard Fillmore (Suburban)	(716) 688-3100
Our Lady of Victory	(716) 825-8000
Roswell Park	(716) 845-2300
St. Francis	(716) 837-4200
Sheehan Memorial	(716) 842-2200
Sisters of Charity	(716) 862-2000
Veterans	(716) 834-9200
Niagara County	
DeGraff	(716) 694-4500
Lockport Memorial	(716) 433-9525
Mount St. Mary's	(716) 297-4800
Niagara Falls Memorial	(716) 778-5111

Browning-Ferris Industries	(716) 672-5027
Clean Harbors Environmental	(800) 854-2821
	(781) 849-6070
Duff's Environmental Service	(716) 965-4245
Environmental Products & Service	(716) 447-4700
	(800) 757-7455
Environmental Service Group	(716) 695-6720
	(800) 348-0316
Marine Pollution Control	(313) 849-2333
OHM Environmental	(716) 693-8800
	(800) 457-4412
Op-Tech Environmental Group	(800) 225-6750
Petroclean, Inc.	(800) 247-3592

# **HAZMAT Response Contractors**

Clean Harbors Environmental	(781) 849-6070
	(800) 854-2821
Environmental Products & Service	(716) 447-4700
	(800) 757-7455
Environmental Service Group	(716) 695-6720
Marine Pollution Control	(313) 849-2333
	(800) 348-0316
OHM Environmental	(716) 693-8800
	(800) 457-4412
Op-Tech Environmental Group	(800) 225-6750

Lake Erie Water Intakes	
Angola Water Dept.	(716) 549-2210
Erie County Water Authority	(716) 947-5450
Buffalo River Corp.	(716) 675-1317
Bethlehem Steel	(716) 821-3609
City of Buffalo	(716) 851-4724

(814) 726-1751

(800) 247-3592

Niagara River Water Intakes		
Town of Tonawanda	(716) 877-4453	
General Motors Plant	(716) 879-5151	
Dupont Film Corp.	(716) 879-1784	
NRG Energy Nuclear Plant	(716) 879-3872	
Town of Grand Island	(716) 278-1777	
City of Tonawanda	(716) 692-0040	
City of North Tonawanda	(716) 695-8536	
Village of Lockport	(716) 439-6726	
Niagara County Water Authority	(716) 283-3013	
New York Power Authority	(716) 285-3211	
City of Niagara Falls, USA	(716) 283-9414	
Occidental Chemical	(716) 278-7777	
Washington Mills Plant	(716) 278-6700	
Ontario Hydro-Electric, CA	(905) 357-0322	

Lake Ontario Water Intakes		
Olcott Harbor "ABANDONED"	(716) 778-8531	

Railroads	
CSX	(814) 870-5210
Norfolk Southern	(440) 593-1607

#### HOW TO USE THIS GEOGRAPHIC RESPONSE PLAN

# Purpose of the Geographic Response Plan (GRP):

Geographic Response Plans are used during the emergent phase of a spill which lasts from the time a spill occurs until the Unified Command is operating and/or the spill has been contained and cleaned up. Generally, the emergent phase lasts no more than 24 hours. The GRP constitutes the Federal On-scene Coordinator's and State On-scene Coordinators' priorities during the emergent phase of the spill. During the project phase of the spill which is carried out by the Unified Command, the GRP will continue to be used as a resource for the identification of environmentally sensitive areas. The GRP will be used in conjunction with input from the federal and state natural resource trustees.

The GRP prioritizes resources to be protected and allows for immediate and proper action. By using this plan, the first responders to a spill can avoid the initial confusion that generally accompanies any spill or pollution incident.

#### **Strategy Selection and Environmentally Sensitive Areas**

Section 5 of this GRP contains complete strategy descriptions, response priorities, and sensitive area maps. The strategies depicted in Section 5 will be implemented after reviewing on scene information including, but not limited to, the location of the source of the spill, type of product spilled, weather conditions, and initial trajectories.

Control and containment at the source is the number one priority in any response. If, in the responder's best judgment, this type of response is not feasible, then the priorities identified in Section 5 of this plan take priority over control and containment of the source.

The successful implementation of the strategies contained in this GRP relies on accurate information regarding the trajectory of the spill. A booming strategy listed as a high priority would not necessarily be implemented if the spill trajectory and booming location did not warrant action in that area.

The strategies identified in this GRP have been designed for use with persistent oils and may not be suitable for other petroleum products or hazardous substances.

#### On Scene

After determining which strategies will be used, assignments are made. Once developed, each responder, contractor, and/or cooperative will be provided with an individual strategy sheet and a map containing the information necessary for implementation of the strategy.

# **Standardized Response Language**

In order to avoid confusion in response terminology, this GRP uses standard Incident Command System terminology and strategy names which are identified in the Eastern Great Lakes Area Contingency Plan.

# 1. Introduction.

Geographic Response Plans (GRP) are intended to help the first responders to a spill avoid the initial confusion that generally accompanies any pollution incident. This document serves as the Federal and State On Scene Coordinators' priorities during a spill in the area covered by this GRP. This GRP has been approved by U.S. Coast Guard Marine Safety Office Buffalo and the New York State Department of Environmental Conservation. This document has been developed by the Eastern Great Lakes Area Committee. Changes are expected to this response plan as it is a working document and lessons learned through exercises and actual incidents will be used to update, revise and improve this plan. To submit comments, corrections, or suggestions regarding this GRP, please use Appendix C.

Federal law directs the President to ensure the removal of a discharge of oil or hazardous substances. Implementing Executive Orders and regulations delegate this responsibility to the U.S. Coast Guard for coastal areas and the U.S. Environmental Protection Agency for inland areas. Each agency has Federal On-Scene Coordinators (FOSCs), who coordinate and monitor emergency efforts by government at all levels to clean up such discharges. The Pre-designated FOSC for the Eastern Great Lakes is the Commanding Officer of U.S. Coast Guard Marine Safety Office Buffalo.

Emergency response actions by the FOSC are governed by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), which set the following national response priorities: safety of human life; stabilizing the situation to preclude the event from worsening; and containing and/or removing the spilled or released material to minimize the impacts on the environment.

Although FOSCs are "in charge" of response, Federal law places primary cleanup responsibility on the Responsible Party - the owner or operator of the facility, vessel, home, or vehicle (any source) from which the spill or release occurred. Further, under the NCP, FOSCs work cooperatively with other Federal, State, and local agencies with jurisdiction over or expertise in response activities. This cooperative effort is accomplished through the use of an Area Committee, including representatives from Federal, State, and local governments, which assists in preparing for emergency response through the development of the Area Contingency Plan (ACP). The ACP describes what needs to be protected in the event of an emergency, the response structure that will be used in an emergency, and what resources are available to respond.

The Eastern Great Lakes Area Committee is a spill preparedness and planning body made up of representatives from federal, state, and local emergency response agencies, industry, and local environmental groups. The Area Committee addresses issues regarding oil spill and hazardous substance responses as well as ensuring the protection of the sensitive environment of Lake Erie, Lake Ontario, and the Buffalo, Niagara, and St. Lawrence Rivers. Members of the Area Committee and its Geographic Subcommittees work together in prioritizing sensitive areas, developing response strategies, and conducting response exercises.

# 1. Introduction. (Con't)

Annexs 1 through 4 of the Eastern Great Lakes Area Contingency Plan have been redesigned as Geographic Response Plans (GRPs). The GRPs have been developed through the use of Geographic Subcommittees to the Eastern Great Lakes Area Committee. The Geographic Subcommittees have included federal, state, and local emergency response experts, representatives from state and local government, industry, ports, environmental organizations, and response contractors. The participants in the development of this GRP have identified environmentally sensitive areas which require protection in the event of an oil or hazardous substance spill, developed response strategies, and identified logistical support for such response actions.

The first goal of the GRP is to identify environmentally sensitive areas requiring protection, response resources needed, site access and staging areas, response community contacts, and local environmental conditions that affect response strategies (e.g. physical features, hydrology, currents, winds, and climate).

The second goal of the GRP is to provide response strategies for ensuring the protection of sensitive areas in the event of an oil spill. Response strategies identify the amount and type of equipment necessary for implementation and the techniques to use in implementation. Response strategies are applied based on oil type, location of the source of the spill, oil trajectories, currents, winds, and prioritization of sensitive areas.

Finally, the sensitive area maps contained in this plan provide a ready resource for first responders. These maps identify sensitive areas and provide information regarding the area's location, resources at risk in the area, access, protection strategies, and the nearest staging area for carrying out response operations.

Included in the Logistical Support section of the GRP are:

- Locations of operations centers available for coordinating response efforts;
- Response equipment available in the area;
- Helicopter and air support;
- Local experts;
- Volunteer organizations;
- Wildlife rehabilitation;
- Damaged vessel safe havens; and,
- Vessel repair and cleaning facilities.

#### 2. Notifications

Conducting proper notifications early in an incident is critical to a successful response. By contacting the agencies listed in section 2.1, a first responder ensures that additional personnel and resources are being activated to respond to the incident.

# 2.1 Agencies to be Notified

The following is a list of organizations to be contacted in the event of an actual or threatened discharge of oil or release of hazardous substances. It is not necessary to contact all of the below organizations for every oil spill or hazardous substance release. Instead the list is intended to serve as a reminder of possible points of contact. All numbers listed in this section are 24 hour numbers for the respective agencies.

National Response Center	(800) 424-8802
USCG Marine Safety Office Buffalo	(716) 843-9525
New York State Department of Environmental Conservation	(800) 457-7362
Erie County Emergency Services	(716) 858-6578
Niagara County Office of Emergency Management	
Canadian Coast Guard	(800) 265-0237
Emergency Measures Ontario	(705) 329-6950

If time is critical, the one notification that should be made is to the National Response Center (NRC). The NRC will then notify all applicable Federal and State agencies who have jurisdiction and responsibility for the affected area.

# 2.2 Required Information for Notifications

The following information should be provided (if known) when contacting the agencies listed above:

Source of the incident
Name, address, and phone number of the Responsible Party
Product spilled or released
Quantity spilled or released
Amount in the water
Location and time of the incident
 Possible cause of the incident
 Waterbody affected
 On-scene weather
 Potential for additional discharge
 Cleanup actions being taken

# 2.3 Response Checklists

Appendices A.1 and A.2 contain checklists for coordinating response activities. Appendix A.1 contains a checklist of activities to be used during a response to an oil spill. Appendix A.2 contains a checklist for use during hazardous materials incidents. These checklists identify the various steps to be taken during a response and provide a checklist to serve as a resource for emergency responders.

The first action in any response is to evaluate the situation and then to prioritize the actions which must be taken. Safety of human life must always be given top priority during every response. Stabilizing the situation to preclude the event from worsening is the next priority. Stabilizing the situation includes securing the source of the spill to prevent additional discharge. Other actions to protect environmentally sensitive areas and real property may be taken concurrently, but safety of life, protection of public health and welfare, and stabilization of the incident are the highest priorities.

# 3. Site Description

The area covered by this GRP encompasses approximately 180 miles of shoreline between the Chautauqua/Erie County Line and the Niagara/Orleans County Line in New York. Included in this area are a wide variety of shoreline habitats on Lake Erie, the Niagara River, and Lake Ontario. The habitats include:

Exposed rocky shores
Bedrock bluffs
Gravel beaches
Mixed sand and gravel beaches
Fine grained sand beaches
Marshes and wetlands
Submerged aquatic plant beds

# 3.1. Physical Features

**Lake Erie**: Lake Erie is the shallowest, most southerly and warmest of the Great Lakes (maximum depth is 62 m (200ft) with an average depth of 19m (62 ft). The greatest width of Lake Erie is 80.5 kilometers (50 miles). Lake Erie's length from the Niagara River to the Detroit River is 639 kilometers (400 miles). The primary inflow of water to Lake Erie is from the Detroit River at the west end of the lake, with the only outflow through the Niagara River.

The maximum fetch (the area of open water over which waves are generated by wind) is approximately 300 kilometers (185 miles). The coast is characterized by eroding cliffs (5-20 meters in height) (15-65 feet) and by four large depositional features (Presque Isle, Point Pelee, Rondeau and Long Point) that have extensive beach-dune and marsh systems. Approximately 21% of the shoreline of Lake Erie is protected by man-made structures (landfill, armourstone, and seawalls).

Most of the area surrounding the lake is either urbanized or farmed, although Lake Erie does contains a number of important wetland areas including Presque Isle, Long Point and Point Pelee. Based on geological characteristics, Lake Erie can be divided into three basins: western, central and eastern. The shallow western basin has a mean depth of only 7.4 m (24.3 ft) and contains many shoals, reefs and islands. The western basin is thought to have the most important fish spawning and nursery grounds in the entire lake; it is also a principal recreation area. The central basin is the largest of the basins, and has a mean depth of 18.5 m (60.7 ft). The eastern basin is the deepest, with a mean depth of 24.4 m (80 ft).

Lake Erie, which is shallow and elongated, is especially vulnerable to wind set-up/set-down fluctuations (storm surge effects) that produce large differences in water level at the eastern and western ends of the lake. This fact has implications for spills, as set-up can result in oil being beached above the normal wave swash zone.

#### 3.1. Physical Features (Con't)

Welland Canal: The Welland Canal crosses 44 kilometers (27.3 miles) in a general north/south direction from St. Catharines (Port Weller Harbour) on Lake Ontario to Port Colborne Harbour on Lake Erie. The original Welland Canal was built from 1824 to 1829 and has been reconstructed three times to accommodate larger ships and allow that ship traffic to bypass Niagara Falls. The shoreline length of the canal, including both sides, is approximately 88 kilometers (55 miles), and vessels are raised 100 m (328 ft) using eight different locks to overcome the height of the Niagara escarpment. The canal banks consist largely of man-made materials. In the lower (northern) section, concrete blocks and natural sediments characterize much of the canal shore. The channel is generally 100 m (328 ft) wide and the banks are continuously affected by ship wakes.

**Niagara River.** The Niagara River joins Lake Erie and Lake Ontario. The entire shoreline length is 171 kilometers (107 miles), 58 kilometers (36 miles) along the Canadian shore and 113 kilometers (71 miles) along the U.S. side (including the shoreline of Grand Island). The river banks are a mixture of man-made structures, bedrock outcrops and beaches of poorly sorted sediments. From Lake Erie to Lake Ontario, the water level drops 99 m (326 ft): approximately one half of the drop occurs at Niagara Falls. The flow over the Falls is regulated by a series of five power plant diversions.

The average discharge of water from the river is nearly 7,000 cubic meters per second, and represents about 85% of the total inflow to Lake Ontario. The water current above the falls is approximately 7 to 9 knots and the river is shallow and rocky. The water current below the falls ranges from 3.6 to 4.5 knots. These swift currents, and the obvious hazard of the Falls complicates safe and effective spill response efforts on the river.

#### 3. 2 Hydrology

In the event of a spill, wind and wave conditions must be monitored to assist in predicting the trajectory of a contaminant. When the trajectory and destination of a spill have been defined, the target shoreline should be assessed for shoreline transport. While overviews of circulation are not necessarily reliable measures of transport, the following information will assist response decision makers in assessing spill impact. An important consideration on the Great Lakes and connecting channels is the historical, annual and storm variation in water levels. This will partially dictate which part of the shore will be oiled during a spill event. The U.S. Army Corps of Engineers publishes a monthly bulletin of lake levels for the Great Lakes. This bulletin includes water levels for the previous year, the current year to date and a level projection for the next six months. The projection is based on the present conditions of the lake basin and anticipated future weather conditions.

#### 3.3 Wind and Waves

**Lake Erie, Niagara River and Welland Canal**: The general pattern of the surface water circulation in the central and eastern basins of Lake Erie is west to east and surface water circulation in the western basin is affected by the flow of water exiting the Detroit River and circling in the basin. Within 5 kilometers (3 miles) of the Niagara River, the hydraulic currents of the river predominate and a unidirectional flow towards the head of the river replaces the wind driven currents, however North or Northeast winds will create a reversal of the surface currents. Water entering the Niagara river from

Lake Erie will generally follow the main channel under the Peace Bridge, then run along the East and West side of Grand Island. Tributary water entering from the

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# 3.3 Wind and Waves (Con't)

shoreline will follow the east channel along the Buffalo/Tonawanda shoreline. Water surface temperatures on Lake Erie typically reach 24° C (75° F) in the summer.

The prevailing winds for the Lake Erie basin are from the southwest parallel to the long axis of the lake, so that maximum fetch distances (up to 300 kilometers/185 miles) coincide with the prevailing and dominant winds. Wave energy levels increase from west to east in the lakes. Winter wave heights on Lake Erie exceed 1 meter (3 ft) only 35% of the time, with rare maximums of 3-5 meters (10-l6 ft) possible. On Lake Erie and the connecting channels, passing vessels will also create waves from their wakes.

#### 3.4 Ice Cover

**Lake Erie**: Initial ice formation begins in the western end of Lake Erie and in Long Point Bay normally during the third week of December. Ice growth and spread accelerate in January with ice coverage generally attaining its maximum extent (90%) in February. In a mild year, ice will cover approximately 25% of Lake Erie's surface, while during severe winters, 100% coverage can occur. In sheltered harbors and bays, ice grows to a thickness of 25-45 cm (10-17.5 in) during a normal winter. Ridging and windrows of ice can achieve an aggregate ice thickness in excess of 20 meters (65 ft) during a single winter storm. Break up normally begins near the beginning of March with the lake becoming mostly open water by the third week of April. The eastern end of the lake is usually the last area to clear. Ice has persisted in the Buffalo area as late as the middle of May.

**Niagara River**: During the winter months ice jams at the Niagara River entrance. Ice booming from December to April prevents the movement of ice down the river. A second natural ice bridge forms in the Niagara gorge below Niagara Falls which at times has reached 24 m (78 ft) above the river level. Ice shields several hundred feet in width form around the perimeters of most Niagara River islands.

# 3.5 Transportation Modes

Oil and hazardous substances are transported through the Eastern Great Lakes Area by vessel, rail, pipeline and vehicle. They are also handled and/or stored at a variety of locations throughout the area. Each of these transportation, handling and storage systems presents a potential risk for an oil spill or hazardous substance release.

#### 3.5.a Vessel Traffic

The Eastern Great Lakes Area serves as a major transportation route for marine traffic bound for other Great Lakes ports. In 2000, the St. Lawrence Seaway Development Corporation recorded 551 transits of oceangoing ships through the Seaway, of these 50 were tank vessels. These vessels carry a wide variety of cargoes, including bulk liquid cargoes such as oil products & hazardous substances, bulk solid cargoes such as grain, iron ore, coal, steel and break bulk cargo. The potential for a significant spill from one of these vessels in the open lakes is remote. However, as vessels enter port, the potential increases due to narrow port entrance channels. Potential for a spill or release increases when vessels transfer cargo to or from facilities.

#### 3.5.a Vessel Traffic (Cont.)

In the Eastern Great Lakes Area, the potential for an oil spill or hazardous chemical release resulting from a vessel casualty is highest in the Niagara River.

Both tank vessels and freighters make port calls to terminals along the Buffalo and Niagara Rivers. Freight vessels generally carry bulk materials, e.g. grain, sand, gravel, etc. to terminals along the Buffalo River and Buffalo and Lackawanna Ship Canals. Tank vessels primarily carry refined petroleum products, such as gasoline, diesel, # 6 fuel oil and heating oil to terminals along the Buffalo River, Lackawanna Ship Canal and the Niagara River. Asphalt is also carried in the Niagara River and coal tar in the Lackawanna Ship Canal.

The Outer Buffalo Harbor is protected by a concrete and rip rap breakwall. There are two entrance channels through the breakwater. The North Entrance Channel is 358-411 m (1175-1350 ft) wide and provides access to terminals along the Niagara and Buffalo Rivers and the Buffalo Ship Canal. The South Entrance Channel opens at 366 m (1200 ft) and narrows to 122 m (400 ft). This entrance provides access to the Lackawanna Ship Canal. The bottom for both entrance approaches is primarily sand & mud. Vessels bound for Niagara River terminals transit the Black Rock Canal. The canal is 61-122 m (200-400 ft) wide and in many locations bounded by concrete breakwaters. The bottom is primarily sand and mud. Because of the confined nature of the canal, the greatest potential for a significant spill in the Buffalo area would result from a vessel casualty as the vessel transits the Black Rock Canal.

# **3.5.b** Marine Transportation Related Facilities

There are five marine transportation facilities in the Eastern Great Lakes Area that transfer, handle or store petroleum. Three are located in the Buffalo/Niagara River Subarea on the Buffalo or Niagara Rivers. Two are located in the Rochester/Oswego Subarea in the Port of Oswego. These facilities store large quantities of petroleum products in fixed tanks on land. The potential for a spill resulting from a tank rupture is remote because the facilities have fixed containment (generally earthen dikes) surrounding the tanks. The most significant potential for an oil spill occurs during cargo handling operations.

#### 3.5.c Mobile Marine Transportation-Related Facilities

Mobile marine transportation-related facilities include tank trucks that transfer oil products to or from a vessel. These trucks generally have a capacity of four to nine thousand gallons. Spills from a mobile facility generally are the result of a traffic accident. Since there is no fixed containment around these facilities it is possible that the released product may enter the water. There is also a potential for an oil spill to occur during cargo handling operations to or from a vessel.

#### 3.5.d Highways

Highway transportation of petroleum products and hazardous substances through the Eastern Great Lakes is also extensive. The interstate highways, I-90 (NY State Thruway), I-190, I-290, and state route 5 are used extensively by trucks passing through the area and distributing these products locally.

# 3.5.e Railroads

An extensive variety of hazardous substances are transported by rail through the Eastern Great Lakes Area. Of particular concern are the numerous river, canal, and creek crossings. The major rail system in the area and the waterbodies they cross are:

Rail Carrier	Waterway/location	Bridge #(Milepost)
Norfolk (Cleveland Line)	Cattaraugus Creek / Irving, NY	28.4
Norfolk (Cleveland Line)	Mud Creek / Farnham, NY	25.7
Norfolk (Cleveland Line)	Delaware Creek / Lake Erie Beach, NY	23.4
Norfolk (Cleveland Line)	Big Sister Creek / Angola, NY	22.1
Norfolk (Cleveland Line)	18 Mile Creek / Evans, NY	15.8
Norfolk (Cleveland Line)	Rush Creek / Blasdell, NY	7.6
Norfolk (Cleveland Line)	Smokes Creek / Lackawanna, NY	5.9 & 5.8
Norfolk (Cleveland Line)	Buffalo River / Buffalo, NY	2.5
CSX (Chicago Main Line)	Cattaraugus Creek / Irving, NY	27.00
CSX (Chicago Main Line)	Mud Creek / Farnham, NY	24.40
CSX (Chicago Main Line)	Delaware Creek / Lake Erie Beach, NY	22.75
CSX (Chicago Main Line)	Big Sisters Creek / Angola, NY	20.94
CSX (Chicago Main Line)	18 Mile Creek / Evans, NY	15.15
CSX (Chicago Main Line)	Rush Creek / Blasdell, NY	6.94
CSX (Chicago Main Line)	Steel Creek / Blasdell, NY	6.01
CSX (Chicago Main Line)	Smokes Creek / Lackawanna, NY	5.27
CSX (Chicago Main Line)	Tifft Creek / Lackawanna, NY	3.15
CSX (Chicago Main Line)	Buffalo River / Buffalo, NY	1.76
CSX (A I.T.)	Scajacquada C	reek / Depew, NY
1.56		
CSX (Belt Line Branch)	Scajacquada Creek / Buffalo, NY	2.28
CSX (Bridge Branch Line)	Gill Creek / Niagara Falls, NY	25.11
CSX (Chicago M/L Track 3)	Buffalo Creek / Buffalo, NY	1.71
CSX (Lockport I.T.)	Sawyer Creek / Tonawanda, NY	16.61
CSX (Niagara Branch)	Scajacquada Creek / Black Rock, NY	6.34
CSX (Niagara Branch)	Ellicott Creek / Tonawanda, NY	12.82
CSX (Niagara Branch)	Erie Barge Canal / Tonawanda, NY	13.37
CSX (Niagara Branch)	Gratwick Creek / N. Tonawanda, NY	16.31
CSX (Niagara Branch)	Black Creek / N. Tonawanda, NY	18.69
CSX (Niagara Branch)	Sawyer Creek / N. Tonawanda, NY	19.76
CSX (Niagara Junction R/R)	Gill Creek / Niagara Falls, NY	0.30 & 0.35 & 3.60
CSX (Niagara Junction R/R)	Pine Creek / Niagara Falls, NY	1.74
CSX (Cross Cut Branch)	Scajacquada Creek / Buffalo, NY	1.12
CSX (Erie I.T.)	Black Creek / N. Tonawanda, NY	17.97
CSX (Erie I.T.)	Sawyer Creek / N. Tonawanda, NY	19.08
CSX (Erie I.T.)	Bergholtz Creek / Wheatfield, NY	19.30
CSX (Erie I.T.)	Cayuga Creek / Wheatfield, NY	20.51

# 4. Environmental Resource Descriptions

#### 4.1 Fish and Wildlife

#### 4.1.a Birds and Waterfowl

The area covered in this GRP is part of the Atlantic flyway. The Atlantic flyway refers to the migratory track for birds migrating each year between Canada and the southern US. The most significant areas are the eastern end of Lake Erie, the Niagara River, and the tributary waterways within the Buffalo area. Migrating birds, including several species of concern, rest, feed, and nest within this area. Over 250 species of birds have been recorded; at least 24 are listed as species of special concern. The Niagara River corridor has been designated an important bird area of international significance by the National Audubon Society

#### **4.1.b** Fish

Special concern must be given to identified spawning areas during a pollution incident. The impact of an oil spill on a spawning and nursery area within or adjacent to a creek channel especially during the spawning season may have a disastrous effect on fish species supporting the food chain. The muskellunge and bass fisheries are of particular importance. Several creeks along the coastline of eastern Lake Erie, western Lake Ontario, and the Niagara River have been identified as spawning areas for chinook and coho salmon. The eastern waters of Lake Erie, western waters of Lake Ontario, and the Niagara River contain over 80 known species of fish.

#### 4.1.c Mammals

The mammal inventory of Buffalo/Niagara Region - Western New York State includes several species of mammals. The mammals included in this inventory are bats, beavers, cottontail rabbits, chipmunks, deer, ermines, fox, mice, lemmings, moles, minks, muskrats, opossums, raccoons, rats, shrews, skunks, squirrel, weasels, and woodchucks.

#### 4.1.d Reptiles and Amphibians

The coastline of Lake Erie, Lake Ontario, and the Niagara River is habitat to several species of salamanders, frogs, toads, turtles and snakes. These species are most susceptible to the effects of a pollution incident during spring, summer, and fall seasons when these species are most active.

#### 4.2 Other Resources

The coastline of Lake Erie, Lake Ontario, and the Niagara River contains numerous species of flora and fauna. Several of these species are endangered or threatened. Due to the potential impact response operations may have on submergent and emergent vegetation, the NY DEC and ACOE must be included in any decision regarding mechanical removal of contaminated vegetation.

#### 4.3 Endangered or Threatened Species

There are three levels of protection afforded to plants and wildlife. The three levels, from highest to lowest levels of protection: endangered, threatened, and species of special concern. Endangered species are protected under state and federal law. The catching, taking, killing, possessing, importing or exporting, selling, offering for sale or purchasing, of any individual of these species, alive or dead, or any part thereof, without special permit is prohibited. These species receive the highest protection possible from the state and federal government. The endangered species identified for the geographic areas described in this GRP are as follows:

# 4.3.a Endangered Species

#### 4.3.a.1 Fish

Shortnose Sturgeon (Acipenser brevirostrum)

Lake Sturgeon (Acipenser fulvescens)

Northern Brook Lamprey (Ichthyomyzon fosser)

Gravel Chub (Erimystax x-punctatus)

Eastern Sand Darter (Ammocrypta pellucida)

Longnose Sucker (Catostomus catostomus)

Spotted Darter (Etheostoma maculatum)

Tippecanoe Darter (Etheostoma tippecanoe)

Longhead Darter (Percina macrophala)

Northern Riffleshell Mussel (Epioblasma torulosa rangiana)

Clubshell Mussel (Pleurobema clava)

Pugnose Shiner (Natropis anogenus)

Gilt Darter (Dercina evides)

Spoonhead Sculpin (Cottus ricei)

Deepwater Sculpin (Myoxocephalus thompsoni)

# 4.3.a.2 Reptiles and Amphibians

Tiger Salamander (Ambystoma thompsoni)

Massasauga Rattlesnake (Sistrurus catenatus)

Bog Turtle (Clemmys muhlenbergii)

New Jersey Chorus Frog (Pseudacris feriatum kalmi)

Coastal Plain Leopard Frog (Rana utricularia)

Kirtland's Snake (Clonophis kirtandii)

Eastern Mud Salamander (Pseudotriton m.montanus)

#### 4.3a.3 Birds and Waterfowl

Piping Plover (Charadrius melodus)

Kirtland's Warbler (Dendroica kirtlandii)

Golden Eagle (Aquila chrysaetos)

Peregrine Falcon (Falco peregrinus)

Black Rail (Laterallus jamaicensis)

Roseate Tern (Sterna dougallii dougallii) Black Tern (Chlidonias niger)

#### **4.3.a.4 Mammals**

Allegheny Woodrat (Neotoma magister)

# 4.3.b Threatened Species

Threatened species are protected under state and federal law. The catching, taking, killing, possessing, importing or exporting, selling, offering for sale or purchasing, of any individual of these species, alive or dead, or any part thereof, without special permit, is prohibited. The threatened species identified for the geographic areas described in this GRP are as follows:

#### 4.3.b.1 Fish

Ohio Lamprey (Ichthyomyzon bdellium)

Mountain Brook Lamprey (Ichthyomyzon greeleyi)

Atlantic Sturgeon (Acipenser oxyrhynchus)

Mountain Madtom (Nosturus eleutherus)

Northern Madtom (Noturus stigmosus)

Burbot (Lota lota)

Bluebreast Darter (Etheostoma camurum)

Channel Darter (Percina copelandi)

Gilt Darter (Percina evides)

Mooneye (Hiodon terglsus)

Lake Chubsucker (Erimyzon sucetta)

Mud Sunfish (Acantharchus Pomisis)

Longear Sunfish (Lepomis Megalotis)

#### 4.3.b.2 Reptiles and Amphibians

Blanding's Turtle (Emydoldea blandingil)

Timber Rattlesnake (Crotalus horridus)

Green Salamander (Aneides aeneus)

Red-bellied Turtle (Pseudemys rubriventris)

Rough Green Snake (Opheodrys aestivus)

#### 4.3.b.3 Birds and Waterfowl

Bald Eagle (Haliaeetus leucocephalus)

Pied-billed Grebe (Podilymbus podiceps)

Least Bittern (Ixobrychus exilis)

Northern Harrier (Circus cyaneus)

King Rail (Rallus elegans)

Upland Sandpiper (Bartramia longicauda)

Common Tern (Sterna hirundo)

Least Tern (Sterna antillarum)

Sedge Wren (Cistothorus platensis)

#### **4.3.b.4** Mammals

None noted.

#### 4.4 Historic Sites

Historic landmarks are easily identifiable and their locations are maintained on public lists by the State Historic Preservation Office for Pennsylvania and New York. Less easily identified and more difficult to detect are archeological sites. Any earth-disturbing activity associated with an oil spill cleanup could potentially involve an archaeological site. Any response which requires excavation and/or soil removal should be coordinated with the State Historic Preservation Office at (518) 237-8643.

The following is a list of the historic sites identified in Erie and Niagara Counties in New York State. If a pollution incident occurs in the vicinity of a historic site, the State Historic Preservation Office should be contacted as soon as possible to ensure adequate protection measures and preservation techniques are employed in and around the site. The historic sites identified along the shoreline in Erie and Niagara Counties are:

#### Art Park in Lewiston

Foot of South Fourth Street Lewiston, NY

#### 30 Mile Point Lighthouse

Golden Hill State Park Lower Lake Road Somerset, NY

#### **Buffalo Main Light**

#### Croaker

U.S. Coast Guard Base 1 Fuhrmann Blvd Buffalo, NY

# Buffalo North Breakwater South End Light South Buffalo North Side Light

Located just south of the Horseshoe Reef at the Buffalo River entrance channel.

# Riverside Park and St. Frances Xaviar Cemetery Off of Niagara St., North of Squaw Is.

North Buffalo, NY

#### Old Fort Niagara & Fort Niagara Light

Fort Niagara State Park Youngstown, NY

#### **Spaulding-Sidway Boathouse**

Off of the West River Pkwy Just North of the Beaver Is. State Park Grand Island, NY

#### USS Sullivans, USS Little Rock, USS

Naval & Servicemen's Park One Naval Pak Cove Buffalo, NY

Located just north of Stony Point at the entrance to the Lackawanna Ship Canal.

#### Niagara Reservation

Prospect Park Niagara Falls, NY

# 5. Sensitive Area Maps

This section includes ten maps identifying the environmentally sensitive areas in the Buffalo/Niagara Region of Western New York, and Canada. Each sensitive area is identified on a chartlet by a site number and an icon. Site numbers are assigned from west to east. On maps 1, 2, 9, & 10, icons are used to identify the specific sensitive area. Maps 3-8 were produced by Environment Canada and indicate both Canadian and U.S. sensitive areas. Numbered exclamation points on these maps indicate an area of environmental significance, with the specific site being displayed by an icon. Additional sensitive area maps can be found in the "Sensitivity of Coastal Environments and Wildlife to Spilled Oil – Lake Erie & Lake Ontario System Atlases", produced by NOAA, and "Environmental Sensitivity Atlas for Lake Erie (including the Welland Canal) and the Niagara River Shorelines", produced by Environment Canada. Copies of both Atlases are maintained at U. S. Coast Guard Marine Safety Office Buffalo.

Maps 1, 2, 9, & 10 contained within this geographic response plan have been reproduced under a limited license from the DeLorme Street Atlas USA. To obtain copies of Street Atlas USA contact DeLorme at (800) 511-2459 or by mail at: Two DeLorme Drive, P.O. Box 298, Yarmouth, ME 04096.

#### 5.1 Sensitive Area Protection Criteria

Sensitive areas in the Eastern Great Lakes Area include: water intakes, bird and wildlife refuge areas, beaches, parks, marinas and coastal tourist establishments. Detailed descriptions of these areas including protection strategies are presented in the site summary sheets contained in the sensitive area description sheets contained in this section. Each sensitive area has been assigned a protection priority value based on the below criteria.

Rating: When two or more sensitive areas are potentially going to be impacted and a decision must be made regarding which area to protect due to limited availability of containment boom, the sensitive area with the HIGHER value is to be protected first.

#### 5.2 Sensitive Area Prioritization Matrix

The criteria for assigning protection priority values to sensitive areas incorporated two existing systems: New York State's Significant Coastal Fish and Wildlife Habitats Program (SCFWHP) and NOAA/USCG's Guidelines for the Development of Sensitive Area Protection Strategies (GDSAPS). There are no prioritization indices for the Canadian sites.

New York State's SCFWHP assigned significance values are based upon the following factors: Population Level (PL), Species Vulnerability (SV), Ecosystem Rarity (ER), Human Use (HU) and Replaceability (R). Pennsylvania does not have a similar system. However, in order to apply a consistent system throughout the Eastern Great Lakes Area, the Erie subcommittee has agreed to apply the NY State program to sensitive areas in Pennsylvania.

# 5.2 Sensitive Area Prioritization Matrix (Con't)

THE SENSETIVE AREA INFORMATION HAS BEEN CLASSIFIED AS FOR OFFICIAL USE ONLY, AND THEREFORE REMOVED FROM THIS DOCUMENT. IF YOU OR YOUR ORGANIZTION NEEDS THIS INFORMATION, PLEASE SUBMITT A WRITTEN REQUEST TO:

COMMANDING OFFICER
U. S. COAST GUARD MARINE SAFETY OFFICE
1 FURHMANN BLVD.
BUFFALO, NY 14203

# 6. Logistical Support

#### **6.1** Emergency Operations Centers

**New York State Emergency Management Organization (SEMO)** has several Emergency Operation Centers (EOC) located in the Eastern Great Lakes area. The EOCs are removed from the lakes and rivers; however, they have telephone capabilities and may be used to establish a temporary command post until a more suitable location is identified. Requests to activate a SEMO EOC should be directed to the appropriate Regional Director. The SEMO EOCs in this area are located:

SEMO Region V, Emergency Operation Centers (315) 331-4880

(a) Western District EOC
221 State St.
Batavia, NY
(b) Lake District EOC
144 Route 31 East
Newark, NY

**Erie County Emergency Services** has an Emergency Operations Center (EOC) located at 95 Franklin Street in Buffalo, New York. Requests to activate the EOC should be directed to the Erie County Emergency Services at (716) 858-6578.

Number of persons EOC can accommodate: 15 Private meeting area for senior officials: Yes

Parking available: Limited, additional parking available in

emergency

Limited EOC access Yes, security guards
Number of installed phone/fax lines: 10 / 1 fax line

Radio communications/capabilities: Yes, local gov't, fire, police and SEMO

Food preparation facilities on site:

Yes, cafeteria in building
Hotels/lodging in vicinity:

Yes, hotels in vicinity

The Erie Co.'s EOC is located in the Rath Building. on Franklin & Pearl Streets in downtown Buffalo.

**Buffalo Fire Department** has an Emergency Operations Center (EOC) located at 195 Court Street in Buffalo, NY. Requests to activate the EOC should be directed to the Buffalo F.D. at (716) 851-5510.

Number of persons EOC can accommodate: 30 Private meeting area for senior officials: Yes

Parking available: Limited, additional parking available in

emergency

Limited EOC access Yes, Buffalo Police Department

Number of installed phone/fax lines: 5 / 1 fax line

Radio communications/capabilities: Yes, local gov't, fire, and police

Food preparation facilities on site:

Yes

Hotels/lodging in vicinity: Yes, hotels in vicinity

The Buffalo F.D.'s EOC is located in Buffalo Fire Headquarters located at 195 Court Street in downtown Buffalo.

#### **6.1** Emergency Operations Centers (Con't)

**Niagara County Office of Emergency Services.** Niagara County's primary Emergency Operations Center (EOC) is located at 5526 Niagara Street Extension in Lockport, New York. Requests to activate the EOC should be directed to the Niagara County Emergency Services at (716) 439-7310.

Number of persons EOC can accommodate: 20

Private meeting area for senior officials: Yes, two rooms

Parking available: Yes

Limited EOC access Yes, controlled by Deputy personnel

Number of installed phone/fax lines: 4 / 1 dedicated fax line

Radio communications/capabilities: Yes, local gov't, fire, police, County Sheriff

and SEMO

Food preparation facilities on site:

Yes, kitchen on-site

Hotels/lodging in vicinity:

Yes, hotels in vicinity

Directions to EOC: Niagara County's EOC is located in the basement of the County Office Building located on Niagara Street in Lockport, New York, one block north of route 31 and two blocks west of Route 278.

**Hotels that may also serve as Potential Command Posts**. Various hotels located throughout the Lake Erie Subarea may serve as command posts. The following hotels have been identified as potential command posts because of their proximity to navigable waters, restaurants, and availability of conference rooms that may be used during a response and sufficient parking capabilities.

 Adams Mark Hotel
 (716) 845-5100

 120 Church Street
 Fax: 845-5377

Buffalo, NY 14202

Number of persons EOC can accommodate: 150+ Private meeting area for senior officials: Yes

Parking available: Yes, 90-100 parking spaces in hotel garage

Limited EOC access: If needed Food preparation facilities: Yes

Directions: I-90 to I-190 to Church Street in Buffalo. Hotel is on right at first light after exit.

**Holiday Inn** (716) 773-1111 100 Whitehaven Road Fax: 773-9386

Grand Island, NY

Number of persons EOC can accommodate: 75-100 Private meeting area for senior officials: Yes, 14

Parking available: Yes, 90-100 parking spaces in hotel garage

Limited EOC access: If needed Food preparation facilities: Yes

Directions: I-90 to I-290 to I-190 North, After going over toll bridge, go to Whitehaven Road exit. Turn right and go to end of Whitehaven Road.

# **6.1** Emergency Operations Centers (Con't)

**Holiday Inn** (716) 282-2211 231 Third Street Fax: 282-2748

Niagara Falls, NY 14303

Number of persons EOC can accommodate: 100

Private meeting area for senior officials: Yes, 3 rooms

Parking available: Yes
Limited EOC access: If needed

Directions: I-90 to I-190 North. Cross Grand Island and take Robert Moses Parkway downtown.

# **6.2** Response Equipment

# 6.2.a U.S. Coast Guard Response Equipment

**Marine Safety Office Buffalo** - (1) pollution response trailer, equipped with 600 feet of 12" river containment boom, sorbent pads, hand tools, and associated anchoring and towing equipment. Response time to any area within the Buffalo/Niagara Region is estimated to be within 1-2 hours.

**ANT Buffalo -** 49ft TANB with 295 hp engines and one 21ft john boat with a 155 hp engine. These boats are capable of deploying containment boom in the event of a pollution incident.

**Station Buffalo -** has a 47ft Utility Boat(UTB) with 435 hp engines and one 24 ft Rigid Hull Inflatable(RHI) with a 200 hp engine. These boats are capable of deploying containment boom in the event of a pollution incident.

**Station Niagara** - 30ft UTM and one 21ft RHI with a 150 hp engine. These boats are capable of deploying containment boom in the event of a pollution incident. The station also has (1) pollution response trailer, equipped with 1000 feet of 24" harbor containment boom, sorbent pads, hand tools, and associated anchoring and towing equipment. Response time to any area in the Buffalo/Niagara Region is estimated to be within 1-2 hours.

#### 6.2.b State and Local Agency Response Equipment

**Buffalo Fire Department** - Has a 17 member HAZMAT Team capable of fully encapsulated (level A) entry to provide life/safety/rescue entry, assess incident and provide back-up for industry entry teams. Hazmat Team is capable of all levels of entry and has a portable DECON unit. Requests for assistance should be directed to the Buffalo Fire Department at (716) 851-4306 or 911.

**Erie County** - Has a 45 member HAZMAT Team capable of fully encapsulated (level A) entry to provide life/safety/rescue entry, assess incident and provide back-up for industry entry teams. Requests for assistance should be directed to the Erie County office at (716) 858-6578.

# **6.2.b** State and Local Agency Response Equipment (Con't)

**South Towns Hazardous Material Response Team** - A 43 member volunteer HAZMAT Team capable of fully encapsulated (level A) entry to provide life/safety/rescue entry, assess incident and provide back-up for industry entry teams. Also have a mobile command bus for use as on-site command post. Requests for assistance should be directed to the Erie County office at (716) 858-6578.

**Brighton Volunteer Fire Department Hazardous Material Response Team** - A 22 member volunteer HAZMAT Team capable of fully encapsulated (level A) entry to provide life/safety/rescue entry, assess incident and provide back-up for industry entry teams. Hazmat Team is capable of all levels of entry and has a portable Mobile Command Post & DECON unit. Requests for assistance should be directed to the Town of Tonawanda dispatch office at (716) 876-1212.

**Niagara County** - Has a 50 member volunteer HAZMAT Team capable of Level B to provide life/safety/rescue entry, assess incident and provide back-up for industry entry teams. Hazmat has a portable DECON unit. Requests for assistance should be directed to Niagara County Sheriff's Department at (716) 438-3393.

**Town Of Lewiston Hazardous Materials Response Team** - Has a 30 member volunteer HAZMAT Team capable of Level B responses. Requests for assistance should be directed to the Lewiston Fire Department at (716) 754-8219.

**Niagara Falls Air Reserve Base Fire Department** - A 64 member paid fire department will respond "off base" at the request of local fire chiefs. Fire Department has 4 foam crash trucks, confined space rescue gear, and fully equipped hazmat trailer. Personnel are capable of Level A response, and are also trained for Nuclear, Biological, or Chemical (NBC) terrorism response. Requests for assistance should be directed to the Air Base at (716) 236-2086.

#### **6.2.c** Commercial Response Contractors Equipment

Elmwood Tank Cleaning Co., Inc. (716) 694-0106 200 Fire Tower Drive Fax: 694-0930 Tonawanda, NY 14150

#### Equipment/Capabilities

1,600' of 18" containment boom

Large supply of sorbent boom, roll, sweep, pads, etc.

Variety of pumps & hoses;

- (2) Vac trucks, 1,700 gallon capacity ea. @ 100 GPM
- (1) 14' Johnboat;

Variety of power generators, portable lighting, steam generators, cherry pickers, hydraulic boom truck Response Information

Response time to Buffalo/Niagara area is 30 min. 24 hrs/day.

### **6.2.c** Commercial Response Contractors Equipment (Con't)

 Marine Pollution Control
 (800) 521-8232

 8631 W. Jefferson
 Fax: (313) 849-1623

Detroit, MI 48209

# **Equipment/Capabilities**

15,000' - 18" containment boom;

Skimmers (6-suction, 1-self sustaining barge w/vacuum pumps)

Pumps (types: 3 Acid, 8 Self sustaining., 3 D.D.(double diaphram) 3 self sustaining(stainless steel)

Vac Trucks (7 total, 1 of them is self sustaining)

Vac Trailers (5 w/ 5k gallon cap., 2 of them are self sustaining)

Platform work barge; 1 w/ a bladder (2500 cap.)

Boats (types: 24' & 20' alum. Hull, 17' & 13' whalers, 26' Sea Ray, 19' four winds, 6 john boats

Sorbent boom, pads, etc.

# Response Information

Response time to Buffalo/Niagara area is 10 hrs.

 OP-TECH Environmental Services, Inc.
 (716) 873-7680

 108 Sawer Ave.
 Fax: 873-7807

 Tonawanda, NY 14150
 24hr: 800-225-6750

Equipment/Capabilities:

1000' - 12" containment boom

(1) Vac truck, 3500 gal. cap., S.S.

Pumps: (2) D.D., one of them is S.S.)

Sorbent boom, pads, etc.

# Response Information

Response time to Buffalo/Niagara area is 1 hr, 24 hrs. a day.

#### SLC Environmental Services (716) 433-0776

295 Mill Street Fax: 433-0776

Lockport, NY 14094

# Equipment/Capabilities:

400' - 18" containment boom;

- (1) 16' johnboat
- (1) Vac trucks 1,000 gallon capacity;

Portable pumps: (2) D.D., (6) Submersable(2 of them are S.S.), (12) Trash type of various sizes

Sorbent boom, pads, etc.

#### **Response Information**

Response time to Buffalo/Niagara area is 1 hour, 24 hrs/day.

# Eastern Great Lakes Area Contingency Plan Annex II, Geographic Response Plan for Buffalo/Niagara Region - Western New York State

# **6.2.c** Commercial Response Contractors Equipment (Con't)

#### PETROCLEAN, Inc.

P.O. Box 1815 (412) 279-9556

Warren, PA 16366 (814) 726-1751 (24hr)

Fax: (412) 279-7082

#### Equipment/Capabilities

2000' - 18" containment boom

Member Great Lakes Co-op (50,000 ft of containment boom available through Co-op);

(7) Vac trucks ranging from 2,000 - 5,000 gallon capacity;

Dedicated 7 man hazmat team;

Sorbent boom, pads, etc.

# Response Information

Response time to Buffalo/Niagara area is 3 1/2 hours, 24 hrs/day.

# Browning-Ferris Industries of New York, Inc.

 4735 West Lake Road
 (716) 366-4060 (day)

 Dunkirk, New York 14048
 (716) 672-5022 (24 hr)

Fax: (716) 366-7300

#### Equipment/Capabilities

150' - 6" containment boom;

(6) Vac trucks @ 3,000 gallon capacity ea. @ 250 gpm;

Variety of sorbent materials

# Response Information

Response time to Buffalo/Niagara area is 2 1/2 hours.

#### **OHM Remediation Services Corp.**

10 Ward Road (716) 693-8800 North Tonawanda, NY 14120 Fax: 693-8001

#### Equipment/Capabilities

400' - 12" containment boom;

300' - 18" containment boom:

12' John boat and 16' John Boat;

Portable tank (6000 gal capacity);

Sorbent boom, pads, etc.

#### **Response Information**

Response time to Buffalo/Niagara area is 30 minutes, 24 hrs/day.

#### **6.2.c** Commercial Response Contractors Equipment (Con't)

#### **Environmental Products and Services**

170 Cooper Avenue, Suite 100 (716) 447-4700 Tonawanda, NY 14150 Fax: 447-4708

# Equipment/Capabilities

300' of 9" containment boom;

500' of 12" containment boom;

Oil skimmer:

Pumps (Submersible, Diaphragm, Trash);

Vac Trucks (2) and Recovery Tanks (3);

12' John boat and 16' John Boat;

Sorbent boom, pads.

# Response Information

Response time to Buffalo/Niagara area is 30 minutes, 24 hrs/day.

# **Op-Tech Environmental Group**

6392 Deere Road (315) 463-1643 Syracuse, NY 13206 Fax: 463-9764

#### Equipment/Capabilities

2,500' of 12" containment boom;

Skimmers (1-suction, 1-self sustaining barge w/vacuum pumps)

Pumps (Double Diaphragm, 8");

Vac Trucks (4 - 1 stainless);

Platform work barge;

12' johnboat and 24' pontoon boat;

Sorbent boom, pads, etc.

#### Response Information

Response time to Buffalo/Niagara area is 3 hours, 24 hrs/day.

#### **Clean Harbors**

32 Bask Road (800) 633-0666 Glenmont, NY 12077 Fax: (518) 434-9118

# Equipment/Capabilities

2,500' of 18" containment boom;

Skimmers (1-suction, 2-self sustaining barge w/ vacuum pumps);

Pumps (types: (1) D.D., (2) S.S., (5) steel, (1) acid);

Vac Trucks (4 total, 3 of them are S.S.);

Boats (types: (3) 12' alum. hull, (1) johnboat, & (1) 17' skiff);

Sorbent boom, pads, etc.

#### Response Information

Response time to Buffalo/Niagara area is 5 hours.

Change 5 34 2/01

# 6.3 Helicopter and Air Support

Erie County Sheriff	(716)	662-5554
1 Sheriff's Drive	Fax:	662-8477

Orchard Park, NY 14127

New York State Police(716) 345-91264525 West Saile DriveFax: 344-2635

Batavia, NY 14020

**Coast Guard Air Station Detroit** (810) 307-6700 Selfridge ANGB, MI 48045-5011 Fax: 307-6705

# 6.4 Local Experts

# 6.4.a Marine Surveyors

**Bartnett Marine Services** (716) 624-1380 52 Ontario Street Fax: Fax: 624-4168

Honeye Falls, NY 14472

**Gilham Robert Associates. Ltd.** (716) 649-8800 184 Highland Avenue Fax:: 649-2700

Hamburg, NY 14075

McGroder Marine Surveyors (716) 935-7848

P.O. Box 405 Fax: 934-7849 Silver Creek, NY 14221

#### 6.4.b Salvage Companies

**Wheelhouse Marine Inc.** (716) 773-7025 3049 Grand Island Boulevard Fax: 773-7025

Grand Island, NY 14072

# **6.5** Volunteer Organizations

#### **American Red Cross**

**Buffalo/Erie County** (716) 886-7500 786 Delaware Ave. Fax: 878-2345

Buffalo, NY 14209

**Niagara County** (716) 285-6938 719 Ashland Ave. Fax: 285-9025

Niagara Falls, NY 14301

### **6.5** Volunteer Organizations (Con't)

## **Salvation Army**

**Buffalo/Erie County area** (716) 883-9800 960 Main St. Fax: 888-6299

Buffalo, NY 14202

**Niagara County area** (716) 283-7697, only M-F (9am-4pm)

7018 Buffalo Ave. Fax: 283-7281

Niagara Falls, NY 14304 After hours, weekends, or holidays call Buffalo

### **Environmental Organizations**

**Great Lakes United** (716)886-0142 Buffalo State College, Cassety Hall Fax: 886-0303

1300 Elmwood Avenue Buffalo, NY 14222

**Friends of the Buffalo River** (716) 691-4934 933 Edgewater Drive Fax: no fax

Buffalo, NY 14228

**Beach Sweep** (716) 549-4330 466 Alfred Drive Fax: no fax

Angola, NY 14006

**Buffalo River Rats** (716) 947-5367 Beechwood Road Fax: no fax

Derby, NY 14047

**Niagara County Environmental** (716) 439-7268 **Management Council** Fax: 439-7267

59 Park Ave.

Lockport, NY 14094

#### 6.6 Wildlife Rehabilitation

Hawk Creek Wildlife Rehabilitation Center (716)652-8646

PO Box 662

East Aurora, NY 14052

**Messinger Woods** (716) 648-8091

PO Box 508

Orchard Park, NY 14127

**Second Chance Wildlife Rehabilitation Center** (716) 625-8189

556 Mapleton Rd. Lockport, NY 14094

**Niagara County SPCA** (716) 731-4368 2100 Lockport Rd. Fax 731-7084

PO Box 200 LPO

Niagara Falls, NY 14304

 Tri-State Bird Rescue
 (302) 737-9543

 110 Possum Hollow Road
 24hr: 737-7241

 Newark, DE 19711
 Fax: 737-9562

International Bird Rescue Research Center (510) 841-9086

100 Possum Hollow Road

Berkley, CA

**International Wildlife Research** (972) 377-9001 7210 Oak Street Fax: 377-9001

Frisco, TX 75034 Pager: 1-800-SKYPAGE, Pin#5464375

**6.7** Damaged Vessel Safe Havens

**Gateway Trade Center** (716) 634-5845 at the Ridge Rd. exit, off of Route 5 Fax: 826-1342

Lackawanna, NY 14218

**6.8** Vessel Repair and Cleaning Facilities

Metro Machine(814) 452-0330P.O. Box 1850Fax: 459-9788

Erie, PA 16507

**Phase I: Discovery or Notification** 

# Appendix A.1 Oil Spill Response Checklist

The items listed below constitute a reference to aid experienced response personnel in addressing the full scope of necessary response related activities associated with an oil spill. The checklist is laid out by category of activities and is not meant to be a chronological listing of response actions.

Collect incident specifics:	
Reporting name & phone number	
Source of incident/related specifics	
Product spilled	
On-Scene Weather	
Amount/potential amount discharged	
Location/time of incident	
Initiate chronological log of events	
Phase II: Preliminary Assessment and Initiation of Action	
Make appropriate notifications. See section 2.1 of this plan for required notifications.	
National Response Center (NRC) (800) 424-8802	
Coast Guard Marine Safety Office Buffalo (716) 843-9570	
New York Department of Environmental Conservation (800) 457-7362	
Pennsylvania Department of Environmental Protection (800) 373-3398	
County Emergency Management Offices	
Local fire depts., hazmat teams	
State/County/Local law enforcement agencies	
State/County Health Dept's	
Affected Water Intakes	
Identify Specific Risk to Response Personnel	
Dispatch response team capable of conducting damage assessment	
Obtain waterway and weather conditions	
Consider potential risk/existing impact of the following:	
Vessel status/not under command damage (aground, underway, anchored, et	c.)
Vessel structural status (# of tanks affected, sound tank(s), vessel sinking?)	
Personnel casualties	
Likelihood of oil/hazardous materials release	
Vessel traffic safety	
Environmental Damage	
Assess risk to public safety/health	
Special forces models	
Evacuation boundaries	
Physical security/site control/safety zones	
Waterborne security/safety zoneBroadcast NTM/NTA	
Special medical needs	
Speed and direction of currents,	
Water temperature, depth, type of bottom	

\_\_\_\_\_Wind speed/direction, air temp, precipitation, etc.

# Appendix A.1 Oil Spill Response Checklist (Con't)

# Phase II: Preliminary Assessment and Initiation of Action

	_Establish Lines of communications with responsible party
	Determine actions taken by responsible party (sound tanks, transfer fm damaged tanks)
	Confirm Scope of the spill:
	Product & amount discharged
	Potential amount
	Determine movement of spilled product
	Actions to secure source of the spill
	Shoreline
	Sensitive areas or species at risk (See Section 4)
	Determine available resources
	Pre-deployed equipment
	Contractor (Identify source, location & brief description of equipment)
	CG/DOD/other agency air/vessel assets
	Additional sources of manpower
	Public/private stockpiles
	On scene input
	Visual extent of incident
	Physical condition of vessel/facility
	Observed environmental damage
	Recommended priority actions
Phase	III: Containment, Countermeasures, Cleanup, and Disposal
	•
	_First Aid Equipment Deployment
	_First Aid Equipment Deployment _Command & Control:
	First Aid Equipment Deployment Command & Control: Select/implement appropriate command structure
	_First Aid Equipment Deployment _Command & Control:Select/implement appropriate command structureEstablish necessary command post(s)
	_First Aid Equipment Deployment _Command & Control:Select/implement appropriate command structureEstablish necessary command post(s)Identify agency goals/objectives
	_First Aid Equipment Deployment _Command & Control:Select/implement appropriate command structureEstablish necessary command post(s)Identify agency goals/objectives _Create action plan
	_First Aid Equipment Deployment _Command & Control:Select/implement appropriate command structureEstablish necessary command post(s)Identify agency goals/objectives _Create action planConsider applicability of fully developed scenarios
	_First Aid Equipment Deployment _Command & Control:Select/implement appropriate command structureEstablish necessary command post(s)Identify agency goals/objectivesCreate action planConsider applicability of fully developed scenariosDevelop salvage plan (short and long term)
	First Aid Equipment DeploymentCommand & Control:Select/implement appropriate command structureEstablish necessary command post(s)Identify agency goals/objectivesCreate action planConsider applicability of fully developed scenariosDevelop salvage plan (short and long term)Identify anticipated personnel/equipment and mobilize in support of action plan
	First Aid Equipment DeploymentCommand & Control:Select/implement appropriate command structureEstablish necessary command post(s)Identify agency goals/objectivesCreate action planConsider applicability of fully developed scenariosDevelop salvage plan (short and long term)Identify anticipated personnel/equipment and mobilize in support of action planImplement communications plan in support of operations
	First Aid Equipment DeploymentCommand & Control:Select/implement appropriate command structureEstablish necessary command post(s)Identify agency goals/objectivesCreate action planConsider applicability of fully developed scenariosDevelop salvage plan (short and long term)Identify anticipated personnel/equipment and mobilize in support of action planImplement communications plan in support of operationsDevelop site safety plan
	First Aid Equipment Deployment Select/implement appropriate command structure Establish necessary command post(s) Lidentify agency goals/objectives Create action plan Consider applicability of fully developed scenarios Develop salvage plan (short and long term) Identify anticipated personnel/equipment and mobilize in support of action plan Implement communications plan in support of operations Develop site safety plan Equipment Deployment:
	First Aid Equipment Deployment  Command & Control:  Select/implement appropriate command structure  Establish necessary command post(s)  Identify agency goals/objectives  Create action plan  Consider applicability of fully developed scenarios  Develop salvage plan (short and long term)  Identify anticipated personnel/equipment and mobilize in support of action plan  Implement communications plan in support of operations  Develop site safety plan  Equipment Deployment:  Based on action plan and on-hand limitations
	First Aid Equipment DeploymentCommand & Control:Select/implement appropriate command structureEstablish necessary command post(s)Identify agency goals/objectivesCreate action planConsider applicability of fully developed scenariosDevelop salvage plan (short and long term)Identify anticipated personnel/equipment and mobilize in support of action planImplement communications plan in support of operationsDevelop site safety planEquipment Deployment:
	First Aid Equipment Deployment  Command & Control:  Select/implement appropriate command structure  Establish necessary command post(s)  Identify agency goals/objectives  Create action plan  Consider applicability of fully developed scenarios  Develop salvage plan (short and long term)  Identify anticipated personnel/equipment and mobilize in support of action plan  Implement communications plan in support of operations  Develop site safety plan  Equipment Deployment:  Based on action plan and on-hand limitations  Effectively integrate arriving resources  Provide response equipment logistics:
	First Aid Equipment Deployment  Command & Control:  Select/implement appropriate command structure  Establish necessary command post(s)  Identify agency goals/objectives  Create action plan  Consider applicability of fully developed scenarios  Develop salvage plan (short and long term)  Identify anticipated personnel/equipment and mobilize in support of action plan  Implement communications plan in support of operations  Develop site safety plan  Equipment Deployment:  Based on action plan and on-hand limitations  Effectively integrate arriving resources  Provide response equipment logistics:  Transportation  Maintenance  Integrate available air assets
	First Aid Equipment Deployment  Command & Control:  Select/implement appropriate command structure  Establish necessary command post(s)  Identify agency goals/objectives  Create action plan  Consider applicability of fully developed scenarios  Develop salvage plan (short and long term)  Identify anticipated personnel/equipment and mobilize in support of action plan  Implement communications plan in support of operations  Develop site safety plan  Equipment Deployment:  Based on action plan and on-hand limitations  Effectively integrate arriving resources  Provide response equipment logistics:  Transportation  Maintenance  Integrate available air assets  Establish wildlife recovery/rehabilitation
	First Aid Equipment Deployment  Command & Control:  Select/implement appropriate command structure  Establish necessary command post(s)  Identify agency goals/objectives  Create action plan  Consider applicability of fully developed scenarios  Develop salvage plan (short and long term)  Identify anticipated personnel/equipment and mobilize in support of action plan  Implement communications plan in support of operations  Develop site safety plan  Equipment Deployment:  Based on action plan and on-hand limitations  Effectively integrate arriving resources  Provide response equipment logistics:  Transportation  Maintenance  Integrate available air assets

# Appendix A.1 Oil Spill Response Checklist (Con't)

# Phase III: Containment, Countermeasures, Cleanup, and Disposal

Public Affairs/Other Notifications:
Establish POC and provide comms link
Develop press release
Promulgate/conduct press releases and briefings
Maintain contact with full realm of media contacts
Disposal Issues:
Determine temporary storage and disposal needs (Barges, Tanks, Bladders)
Identify storage and disposal options
Determine transportation needs/options
Document means to obtain necessary permit
Consider advisability of special treatment methods, e.g. bioremediation, in-situ burning, etc.
Conduct necessary restoration activities
Environmental
Private
Phase IV: Documentation and Cost Recovery
Identify funding needs/access OSLTF/CERCLA
Issue appropriate pollution letters
Cost Documentation:
Implement cost documentation procedures
Consider contractor support

The items listed below constitute a reference to aid experienced response personnel in addressing the full scope of necessary response related activities associated with a release of hazardous materials. This checklist is laid out by category of activities and is not meant to be a chronological listing of response actions.

Phase I: Discovery or Notification		
Collect incident specifics:		
Reporting name & phone number		
Source of incident/related specifics		
Detailed information regarding product rele	eased	
TRADE NAME: COMMO	ON NAME:	
CAS NUMBER: UN NUM	MBER:	
CAS NUMBER: UN NUM MEASUREMENT UNIT (circle one):GALS/BB	LS/LBS/OTHER:	
QUANTITY RELEASED: BASIS F	OR ESTIMATE:	_
POTENTIAL (tank vol.): VOLUM		
RELEASE DATE/TIME:		
INITIAL COMMENTS:		
On-Scene Weather		
Location of incident		
Initiate chronological log of events		
Exchange information with local responders		
LActualize information with focul responders		
Phase II: Preliminary Assessment and Initiation of Ac	etion	
i hase ii. I reminiary Assessment and Initiation of Ac	LIOII	
Make appropriate notifications. See section 2.1 of t	his plan for required	notifications
National Response Center (NRC) (800) 42		nourieurons.
Coast Guard Marine Safety Office Buffalo		
New York Department of Environmental C		31 <sub>-</sub> 7220
County Emergency Management Offices		
eounty Emergency Management Offices	Niagara County	
Local fire depts., hazmat teams	Magara County	(110) 437-1310
State/County/Local law enforcement agence	ries	
State/County health Dept's	103	
Affected Water Intakes		
Specific Risk to Response Personnel		
Dispatch response team capable of conducting site	entry/damage access	ment.

The following is intended to provide general guidance in regards to personnel safety issues to on-scene responders. Although it provides valuable information which can be used effectively to ensure the well-being of those involved in a hazardous materials response, it is not intended to replace a more detailed, incident-specific site safety plan. This site safety plan should be a written document prepared in advance of any on-scene action by a qualified representative of that response agency taking the lead on the hazmat.

 -Identify hazardous substance/substances involved. (Accurate identification of products, including
spelling, is essential. A small mistake can change a chemical's name and thus its properties and
associated hazards.) Sources of information include the following:
a. North American Emergency Response Guidebook
b. CHRIS manuals
c. Chemical dictionaries
d. The MERCK index
e. CHEMTREC
f. MSDS's
g. Manufacturers and users of the material
h. CAMEO
Determine exposure limits (IDLH, STEL, TLV, Oxygen deficiency, etc. as applicable.)
-Evaluate risks regarding following modes of entry:
a. Inhalation
b. Contact/Absorption
c. Ingestion
d. Injection
-Evaluate potential impact to responders of other complicating factors:
a. Fire, explosion
b. Weather
c. Sea State, Terrain
d Limited Access Location
e. Other hazardous substances in area/on premises
-Identify suitable protective equipment
-Ensure responders are aware of risks and symptoms of exposure
-Ensure air monitoring and sampling are being conducted (normally done by Air Quality or county
Health Department.)
-Ensure water monitoring and sampling are being conducted (normally done by county Health
Dept., NOAA or respective state fish and wildlife authority.)
-Assess risk to public safety/health
 -Identify evacuation boundaries
 -Physical security/safety zones
 -Speed and direction of currents,
 -Water temperature, depth, type of bottom
-Wind speed/direction, air temp, precipitation, etc.
 Whit spect/direction, all temp, precipitation, etcThe following questions/issues should also be addressed:
 The following questions issues should also be addressed.

WHO IS INCIDENT COMMANDER (IC)					
IDENTIFY POTENTIAL COMPLICATIONS, PRELIMINARY ASSESSMENT, THREAT OF SPREAD OF CONTAMINATION:					
LOCATION	LOCATION OF COMMAND POST:				
FASTEST AC	CCESS ROUTE TO INCIDENT (CONSIDER SAFETY, USE UP-WIND				
Consid	er potential risk/existing impact of the following:				
	_Vessel status/not under command damage (aground, underway, anchored, etc.)				
	_Vessel structural status (number of tanks affected, tank soundings, stability of vessel,				
	including danger of sinking)				
	_Personnel casualties				
	_Likelihood of oil/hazardous materials release				
	_Environmental Damage				
	sh lines of communications with responsible party				
	nine actions taken by responsible party (sound tanks, transfer from damaged tanks)				
Determ	nine type of environment impacted:				
	_Shoreline				
	_Sensitive areas at risk				
	_Sensitive species at risk (See Section 4 of this Plan)				
Detern	nine available resources				
	_Pre-staged				
	_Contractor (Identify source, location & brief description of equipment)				
	_DOD/other agency air/vessel assets				
	_Additional sources of manpower				
	_Public/private stockpiles				
On sce	ne input				
	_Visual extent of incident				
	_Physical condition of vessel/facility				
	_Observed environmental damage				
	_Recommended priority actions				
	waterway and weather conditions				
	sh lines of communications with responsible party				
	nine actions taken by responsible party (sound tanks, transfer from damaged tanks)				
Confir	m scope of the spill:				
	_Product & amount discharged,				
	_Potential amount				
	_Determine movement of spilled product				
	_Actions to secure source of the spill				

# Phase III: Containment, Countermeasures, Cleanup, and Disposal

First Aid Equipment Deployment
Command & Control:
Select/implement appropriate command structure
Establish necessary command post(s)
On-Scene Communications (Personnel reporting to either on-site or off-site command
post should be equipped with appropriate comms capabilities and be knowledgeable in the
comms procedures that will be followed throughout the response.)
Identify agency goals/objectives
Determine if responsible party is taking appropriate action
Create action plan - rescue, evacuate injured.
Consider applicability of fully developed scenarios
Develop salvage plan (short and long term)
Identify anticipated personnel/equipment and mobilize in support of action plan
Implement communications plan in support of operations
Develop site safety plan
Equipment Deployment:
Based on action plan and on-hand limitations
Effectively integrate arriving resources
Provide response equipment logistics:
Transportation
Maintenance
Integrate available air assets
 Establish wildlife recovery/rehabilitation
Meet personnel needs
Food/lodging (Identify most convenient lodging, including govt. rate & conference room)
Transportation (Identify sources of rental vehicles)
 Public Affairs/Other Notifications:
Establish POC and provide comms link
Develop press release:
Promulgate/conduct press releases and briefings
Maintain contact with full realm of media contacts
 Disposal Issues:
Determine temporary storage and disposal needs (Barges, Tanks, Bladders)
Identify storage and disposal options
Determine transportation needs/options
Document means to obtain necessary permit
_Consider advisability of special treatment methods, e.g. bioremediation, in-situ burning, etc.
_Conduct damage assessment
Determine environmental medium(s) affected (water, air, land (surface-subsurface)

Conduct necessary restoration activities	
Environmental	
Ensure natural resource trustees are notified and aware of their responsible concerning the following:	oilities
Damage assessment and associated cost recovery;	
Devising protection, rehabilitation, and restoration plans for natura affected;	al resources
Endangered and migratory species;	
Incident-specific concerns (birds flying into plumes, marine life en	itering
contaminated water, etc.)	
How clean is clean? Ensure all appropriate agencies are consulted before pronou	ncing response
complete.	
Phase IV: Documentation and Cost Recovery	
a. Use of CERCLA Fund for Hazardous Materials Incident Response:	
See the ACP for procedures for accessing the CERCLA fund;	
Criteria for accessing federal financing for a CERCLA cleanup differs f	rom that of an
FWPCA cleanup. The U.S. Coast Guard OSC may access the CERC	LA Fund for
response to a hazardous material incident only after determining CERCL	A applicability
as outlined in the National Contingency Plan (40 CFR 300).	
The following conditions must be met:	
1. Material is a hazardous substance, pollutant or contaminant that may p	resent an
imminent and substantial danger to the public health or welfare;	
2 The material has been released or there is a substantial threat of release	se into the
environment;	
3 The responsible party is not taking appropriate action or the OSC must responsible party's action.	monitor the
b. Evidence Collection:	
Local/county district attorney should be notified immediately and will normally tal-	ke the local lead
in the investigation;	
Thoroughly document elements of a violation as you would for an oil spill;	
Sampling should be conducted if possible, but only by qualified personnel from ag	gencies such as
the county health dept., EPA, National Strike Force, etc.	
Issue appropriate pollution letters	
Cost Documentation:	
1. Implement cost documentation procedures	
2. Consider contractor support	
Ensure private citizens aware of procedures for filing a cost recovery claim to N	PFC.

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# **Appendix B Protection Techniques**

#### **Containment Booming**

# **Description**

Boom is deployed in a "U" shape in front of the oncoming slick. The ends of the booms are anchored by work boats or drogues. The oil is contained within the "U" & prevented from reaching the shore.

## **Equipment Requirements**

For 150 meter (500 ft) slick: 280 meters (900 ft) of boom, 2 boats, boat crews & 4 boom tenders and misc. tow lines, drogues, connector, etc.

# **Operational Limitations**

High winds, swells >2 meters, breaking waves > 50 cm, currents >1 knot.

#### **Exclusion Booming**

#### Description

Boom is deployed across or around sensitive areas & anchored in place. Approaching oil is deflected or contained by boom.

#### Equipment Requirements

Per 300 meters (1000 ft) of boom: 1 boat, boat crew & 3 boom tenders and misc. anchors, lines, buoys etc.

### **Operational Limitations**

Currents >.5 knots, breaking waves >50cm (1.6 ft) and water depth >20 meters (65 ft).

# **Deflection Booming**

#### Description

Boom is deployed from the shoreline away from the approaching slick & anchored or held in place with a work boat. Oil is deflected away from shoreline.

## **Equipment Requirements**

Boom is deployed from the shoreline away from the approaching slick & anchored or held in place with a work boat. Oil is deflected away from shoreline.

### **Operational Limitations**

Currents > 1 knot and breaking waves > 50 cm (1.6 ft).

# Appendix B Protection Techniques (Con't)

#### **Diversion Booming**

#### Description

Boom is deployed from the shoreline at an angle toward the approaching slick & anchored or held in place with a work boat. Oil is diverted towards shoreline for recovery.

### **Equipment Requirements**

Boom is deployed from the shoreline away from the approaching slick & anchored or held in place with a work boat. Oil is deflected away from shoreline.

## **Operational Limitations**

Currents >1 knot and breaking waves >50 cm (1.6 ft).

#### Skimming

#### Description

Self-propelled skimmers work back & forth along the leading edge of a windrow to recover the oil. Booms may be deployed from the front of a skimmer in a "V" configuration to increase sweep width. Portable skimmers are placed within containment booms in the area of heaviest oil concentration.

#### **Equipment Requirements**

Skimmer unit 200 meters of boom, 2 boats, boat crews and 4 boom tenders, misc. tow lines, bridles, connectors, etc., portable hoses and oil storage tank.

#### **Operational Limitations**

Currents>1 Knot and breaking waves>50 cm.

### **Onshore Techniques**

#### **Berms**

#### Description

A berm is constructed along the top of the mid-intertidal zone from sediments excavated along the downgradient side. The berm should be covered with plastic or geotextile sheeting to minimize wave erosion.

### **Equipment Requirements**

Bulldozer/Motor grader, equipment operator and 1 worker, misc. plastic or geotextile sheeting.

#### **Operational Limitations**

High wave energy, large tidal range and strong alongshore currents.

# Appendix B Protection Techniques (Con't)

### **Sorbent Barriers**

## **Description**

A barrier is constructed by installing two parallel lines of stakes across a channel, fastening wire mesh to the stakes & filling the space between with loose sorbents.

# **Equipment Requirements**

Per 30 meters (100 ft)of barrier: 70x2 meter wire mesh, 20 stakes, 2 people, misc., fasteners, support lines, additional stakes etc.

## **Operational Limitations**

Waves >25cm, currents >.5 knots and tidal range >2 meters.

#### **Inlet Dams**

## **Description**

A dam is constructed across the channel using local soil or beach sediment to exclude oil from entering channel.

# **Equipment Requirements**

1 loader, equipment operator and worker or several workers with shovels.

## **Operational Limitations**

Waves >25cm, tidal range exceeding dam height and freshwater out flow.

# Appendix C Geographic Subcommittee Members

Name/Title	Address		Telephone
Subcommittee Chair	NY Department of Environmental Conservation, Region 9	Fax:	(716) 851-7220 (716) 851-7252
Spill Engineer	270 Michigan Avenue Buffalo, NY 14203-2999		
<u>Members</u>			
	New York State Emergency		(315) 331-4880
Director, Region III	Management Office 2	24hr	(518) 457-2200
	1144 East Union Street F Newark, NY 14513-9802	Fax:	(315) 331-3934
	Erie County (NY) Department		(716) 858-8477
Deputy Commissioner	of Emergency Services F 95 Franklin Street Buffalo, NY 14202	Fax:	(716) 858-7937
	Niagara County (NY) Emergency		(716) 438-3471
Director	Management Office F P.O. Box 496 Lockport, NY 14095	Fax:	(716) 438-3473
	Niagara County (NY) Emergency		(716) 438-3476
Assistant Director		Fax:	(716) 438-3475
	•		(716) 951 7010
Environmental Specialist	NY Department of Environmental Conservation, Region 9 F 270 Michigan Avenue Buffalo, NY 14203-2999	Fax:	(716) 851-7010 (716) 851-7252
	U.S. Corps of Engineers		(716) 879-4454
Emergency Management Specialist		Fax:	(716) 879-4267

# Appendix C Geographic Subcommittee Members (Con't)

Name/Title	Address		Telephone
Operations Manager	NOCO 700 Grand Island Boulevard Tonawanda, NY 14150	Fax:	(716) 874-7250 (716) 874-0773
Plant Manager	United Refining Company 4545 River Road Tonawanda, NY 14150	Fax:	(716) 874-6650 (716) 877-3825
Chairman	Erie County (NY) LEPC 2000 M&T Plaza Buffalo, NY 14203	Fax:	(716) 848-1417 (716) 852-0349
Field Station Manager	Great Lakes Center HC-215 Buffalo State College 1300 Elmwood Avenue Buffalo, NY 14222-1095	Fax:	(716) 878-5625 (716) 878-6646
Branch Manager	Op-Tech Environmental Services 108 Sawyer Avenue Tonawanda, NY 14150		(716) 873-7680 (716) 873-7807
Public Health Specialist 3	New York State Department of Health 584 Delaware Avenue Buffalo, NY 14202	Fax:	(716) 847-4502 (716) 847-4661
Officer in Charge	Officer in Charge USCG Station Buffalo 1 Fuhrmann Blvd. Buffalo, NY 14203-3189	Fax:	(716) 843-9561 (716) 843-9567
Officer in Charge	Officer in Charge USCG Station Niagara Youngstown, NY 14174	Fax:	(716) 745-3327 (716) 745-9620
Chief, Port Operations Department	U.S. Coast Guard Marine Safety Office Buffalo 1 Fuhrmann Boulevard Buffalo, NY 14203	Fax:	(716) 843-9570 (716) 843-9571

# Appendix D.1 Comments / Corrections / Suggestions Form

Directions: Make a copy of this form before you fill it in so you have extra forms.

Fill in your name, address, agency, and telephone number. Fill in the blanks regarding the location of information in the plan that is being commented on. Make comments in the space provided; attach additional sheets if required. Forms should be returned to:

USCG Marine Safety Office Buffalo 1 Fuhrmann Boulevard Buffalo, NY 14203

Name:	_Title:	_Agency:
Address:		
City:	_State:	_Zip Code
Phone:	_	
Page Number:		
	ion, paragraph):	
Comments:		
		·
		_